

PATH DIVERSITY EQUALIZATION CDMA DOWNLINK RECEIVER

Abstract

- 5 A code division multiple access downlink receiver for providing wireless communication via a wireless channel between a base station and a mobile station in which the receiver is implemented. The receiver comprises a plurality of subchannels of which each conveys at least one signal received from the base station, and a cell searcher for receiving signals in the plurality of subchannels and retrieving therefrom a common code
- 10 relating to a cell. The receiver also comprises a code generator for generating a set of common and dedicated codes relating to at least one communication channel using the output of the cell searcher, and a plurality of equalizers for receiving the code generator output and equalizing the received signals in the plurality of subchannels, in which each of the plurality of equalizers includes a plurality of filters in which each of the plurality
- 15 of filters corresponds to each of the plurality of subchannels, in which the length of each of the plurality of filters is lesser than the length of each of the plurality of subchannels.